

REMARKS

In view of the above amendments and following remarks, reconsideration and further examination are requested.

In the Final Rejection mailed August 9, 2006: claims 1-3, 5, 6, 8, 16-21 and 23-25 were rejected under 35 U.S.C. § 102(e) as being anticipated by Lee et al.; claim 4 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Lee et al. in view of Switzer; claim 7 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Lee et al. as evidenced by Tatsuura et al.; claim 9 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Lee et al. in view of Shinozuka et al.; and claims 29-33 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Lee et al. in view of Taniguchi et al.

It has come to Applicants' undersigned representative's attention that claim 26 was not formally addressed in the Office Action, and accordingly, on November 8, 2006, a telephonic interview was conducted with Examiner MacArthur in order to discuss this matter. Please note that claim 22 was also not formally addressed in the Office Action.

After considering claim 26, Examiner MacArthur indicated that this claim probably would have been rejected based on the proposition that the shape of a claimed feature is generally not deemed to be of patentable significance since the shape is considered to be a matter of design choice unless the shape leads to some new and unexpected results. Thus, recitation of a "circular" processing space would probably not result in the allowance of claim 26. Examiner MacArthur indicated, however, that upon the filing of a response claim 26 would be fully considered and addressed.

Accordingly, claim 26 remains, and is believed to be patentable for the reasons as set forth in the in the response filed May 26, 2006. Accordingly, the Examiner is respectfully requested to consider the arguments of the May 26th response that pertain to patentability of claim 26. The following additional arguments are presented to demonstrate patentability of claim 26.

In order to make the processing space of Emesh et al. circular, one would have to substantially modify the surface of claim polishing pad 204 so as to remove grid-like grooves

304; however, it is respectfully submitted that such a modification would remove from Emesh et al. an intended function thereof, whereby such a modification would not have been obvious to one having ordinary skill in the art. Specifically, as expressed in paragraph [0051], the grid-like grooves 304 serve a specific purpose of affecting transportation of the electrolyte solution on polishing surface 204 during a polishing process. There is no indication that the apparatus of Emesh et al. could operate as intended without these grid-like grooves. Thus, one having ordinary skill in the art would not have found it obvious to substitute a circular processing space for the processing space of Emesh et al.

Because the claimed “circular” processing space is advantageous in that such a space can prevent processing liquid contained therein from contacting air, while at the same time allowing the processing liquid in the processing space to cover an entire surface of the substrate, and because there is no indication that a circular processing space would function the same as the grid-like processing space of Emesh et al., it is respectfully submitted that a “circular” processing space is not simply a matter of design choice.

Neither Lee et al. nor Taniguchi et al. resolve this deficiency of Emesh et al., and accordingly, claims 26-33 are allowable.

Additionally, claims 1-9 and 16-19 have been canceled and claim 20 has been amended to recite that the ultrasonic transducer is to “collapse the micro-bubbles”. Such a feature is lacking from Lee et al. In this regard, as expressed in paragraph [0096] of Lee et al., energy emitter 1112 is stated to remove gas bubbles and is not stated to collapse micro-bubbles.

Neither Emesh et al. nor Taniguchi et al. resolve this deficiency of Lee et al., and accordingly, claims 20-25 are also allowable.

In view of the above amendments and remarks, it is respectfully submitted that the present application is in condition for allowance, with the allowed claims being 20-33, and an early Notice of Allowance is earnestly solicited.

If after reviewing this Amendment, the Examiner believes that any issues remain which must be resolved before the application can be passed to issue, the Examiner is invited to contact the Applicants' undersigned representative by telephone to resolve such issues.

Respectfully submitted,

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